



DH-SD5A432XA-HNR

4MP 32x Starlight IR WizSense Network PTZ Camera



- · 1/2.8" 4Megapixel STARVIS™ CMOS
- · Powerful 32x optical zoom
- · Max. 25/30fps@4M
- · IR distance up to 150 m
- · Deep-learning-based auto tracking and perimeter protection
- · SMD PLUS
- · PoF+
- · IP67, IK10
- · Face Detection













Wiz Sense

Launched by Dahua Technology, WizSense is a series of AI products and solutions that adopt independent AI chip and deep learning algorithm. It focuses on human and vehicle with high accuracy, enabling users to fast act on defined targets. Based on Dahua's advanced technologies, WizSense provides intelligent, simple and inclusive products and solutions.

System Overview

Featuring powerful optical zoom and accurate pan/tilt/zoom performance, this camera provides an all-in-one solution for capturing long distance video surveillance for outdoor applications. Together with infrared illumination and Starlight Technology, the camera is the perfect solution for dark, lowlight applications. The series combines a day/night mechanical IR cut filter for the highest image quality in variable lighting conditions during the day, and True WDR for applications with direct sunlight or glare.

Functions

Perimeter Protection

Automatically filters out false alarms caused by animals, rustling leaves, bright lights, etc. Enables system to act secondary recognition for the targets to improve alarm accuracy.

Starlight+ Technology

For challenging low-light applications, Dahua's Starlight Ultra-low Light Technology offers best-in-class light sensitivity, capturing color details in low light down to 0.005 lux. The camera uses a set of optical features to balance light throughout the scene, resulting in clear images in dark environments.

PFA Technology

PFA technology has innovatively introduced new methods of judgment to ensure the accuracy and predictability of the direction of subject distance adjustment. The result is a set of advanced focusing algorithms. PFA ensures clarity of the image throughout the process of zooming and shortens focus time. The realization of PFA technology substantially improves user experience and increases product value.

SMD PLUS

With Deep-Learning Algorithm, Dahua SMD PLUS filters the motion detection alarm triggered by non-concerned target and recognizes human and vehicle effectively, sending alarms when human and vehicles intrude.

Wide Dynamic Range

The camera achieves vivid images, even in the most intense contrast lighting conditions, using industry-leading wide dynamic range (WDR) technology. For applications with both bright and low lighting conditions that change quickly, True WDR (120 dB) optimizes both the bright and dark areas of a scene at the same time to provide usable video.

Auto-tracking

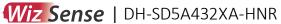
This feature controls the pan/tilt/zoom actions of the camera to automatically track an object in motion and to keep it in the scene. The tracking action can be triggered manually or automatically by defined rules. Once a rule is triggered, the camera can zoom in and track the defined target automatically.

Smart H.265+

Smart H.265+ is the optimized implementation of the H.265 codec that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart H.265+ technology reduces bit rate and storage requirements by up to 70% when compared to standard H.265 video compression.



Part	Technical Specification					Tripwire and intrusion. Support alarm triggering by target types (human and vehicle). Support filtering
Max.	Camera				Perimeter Protection	false alarms caused by animals, rustling leaves, bright
Max. Resolution	Image Sensor	1/2.8" STARVIS™ CMOS			Face Detection	Support
ROM	Pixel	4MP			Auto Tracking	Support
Electronic Shutter Speed	Max. Resolution	2560 (H) × 1440 (V)			SMD PLUS	Support
Electronic Shutter Speed	ROM	4 GB			Video	
Screening System	RAM	1 GB			Compression	
Min.	Electronic Shutter Speed	1/1 s-1/30000 s			Streaming Capability	3 streams
Min. Illumination	Scanning System	Progressive			0 1 1	
	Min. Illumination	B/W: 0.0005 Lux@F1.35			Resolution	CIF (352 × 288/352 × 240)
Bit Rate	Illumination Distance				Frame Rate	Sub stream 1: D1/CIF (1–25/30 fps)
DayNight Auto (CRI/Color/B/W	Illuminator On/Off Control	Zoom Prio/Manual/SmartIR			Bit Rate Control	Variable/Constant
Description	Illuminator Number	4			Bit Rate	
Max. Aperture	Lens				Day/Night	Auto (ICR)/Color/B/W
Field of View	Focal Length	4.9 mm-156 mm			BLC	Support
Process Pan: 0.1/9-300/s Tit: 0.30/s Pan: 0.1/9-200/s	Max. Aperture	F1.35-F4.4			WDR	120 dB
## White Balance Natural light/Street lamp	Field of View	H: 61.6°-2.1°; V: 35.1°-1.3°; D: 68.2°-2.5°			HLC	Support
Gain Control Auto/Manual Iris Control Auto/Manual/Fixed Detect Observe Recognize Identify DORI Distance 1232 m (1232 m) (124 m) (1023.62 ft) (4041.99 ft) (1023.62 ft) PTZ Pan/Tilt Range Pan: 0"-360" endless Tilt: 0.11/s-200"/s Preset Speed Pan: 0.00/s Preset Speed Pan: 0.00/s Tilt: 0.11/s-200"/s Presets 300 Tour 8 (up to 32 presets per tour) Pattern 5 Scan 5 Power-off Memory Support Johnson Detection Support Region of Interest (Rol) Support Image Stabilization Electronic Defog Electronic Digital Zoom 16x Flip 180" Privacy Masking Up to 24 areas, and up to 8 areas in the same view S/N Ratio 255 dB Audio Compression G771a; G711Mu; G776; AAC; MPEG2-Layer?; G722.1; G729; G723 Network Ethernet RJ-45 (10/1008ase-T) Protocol Preset/Tour/Pattern/Scanning Interoperability ONNE Profile Se.G&T CGI Protocol Pelco-P/D (autor recognition) Artificial Intelligence Smart Capture Support Layer selected and non-motor vehicle Smart Capture Support Layer Support Layer Support Layer Support Layer Support Layer Support Layer Support Support Streaming Method Unicast/Multicast User/Host 200 (Stream Method) User/Host 200 (Stream Method) Distriction (Intelligence) Auto/Manual Auto/Ma	Optical Zoom	32x			White Balance	
Noise Reduction 2D/3D 2D	Focus Control	Auto/Semi-Auto/Manual			Gain Control	Auto/Manual
Detect Observe Recognize Identify 1320 m (10236.22 ft) (4041.99 ft) (2047.24 ft) (1023.62 ft) PTZ Pan/Tilt Range Pan: 0"-360" endless Tilt: -15" to +90"; auto flip 180 Preset Speed Pan: 400"/s Tilt: 300"/s Presets 300 Presets 300 Pattern 5 Scan 5 Scan 5 Scan 5 Scan 5 Power-off Memory Support Defect (1024)	Close Focus Distance	1 m-1.5 m (3.28 ft-4.92 ft)			Noise Reduction	2D/3D
DORI Distance Support	Iris Control	Auto/Manual/Fixed			Motion Detection	Support
PTZ Pan, 0"-360" endless Tilt: -15" to +90", auto flip 180 Flip 180"		Detect Observ	Recognize	Identify	Region of Interest (RoI)	Support
PTZ Pan/Tilt Range	DORI Distance				Image Stabilization	Electronic
Pan/Tilt Range Pan: 0"—360" endless Tilt: -15" to +90", auto flip 180 Manual Control Speed Pan: 0.1"/s-300"/s Tilt: 0.1"/s-200"/s Preset Speed Pan: 400"/s Tilt: 300"/s Presets Presets 300 Compression Fattern 5 Network Ethernet Power-off Memory Support Protocol DH-SD Pelco-P/D (auto recognition) Pan: 0.1"/s-300"/s Flip 180" Privacy Masking Up to 24 areas, and up to 8 areas in the same view 35/N Ratio 255 dB Audio Compression G.711a; G.711Mu; G.726; AAC; MPEG2-Layer2; G722.1; G729, G723 Network Ethernet RJ-45 (10/100Base-T) Protocol Protocol DH-SD Pelco-P/D (auto recognition) Artificial Intelligence Support human, motor vehicle and non-motor vehicle Support human, motor vehicle and non-motor vehicle Support human, motor vehicle and non-motor vehicle Protocol Protocol Protocol Pan: 0.1"/s-300"/s Flip 180" Lip to 24 areas, and up to 8 areas in the same view Lip to 24 areas, and up to 8 areas in the same view Audio Compression G.711a; G.711Mu; G.726; AAC; MPEG2-Layer2; G722.1; G729, G723 NetWork Ethernet RJ-45 (10/100Base-T) Protocol Protocol Protocol Protocol Protocol DH-SD Pelco-P/D (auto recognition) Artificial Intelligence User/Host Description De					Defog	Electronic
Pan/ lit Kange Tilt: –15° to +90°, auto flip 180 Flip 180° Manual Control Speed Pan: 0.1°/s–300°/s Tilt: 0.1°/s–200°/s Privacy Masking Up to 24 areas, and up to 8 areas in the same view Preset Speed Pan: 400°/s Tilt: 300°/s S/N Ratio ≥ 55 dB Audio Audio Compression G.711a; G.711Mu; G.726; AAC; MPEG2-Layer2; G722.1; G729; G729, G729, G729 Pattern 5 Network Scan 5 Ethernet RJ-45 (10/100Base-T) Power-off Memory Support Protocol IPv4; IPv6; HTTP; HTTPS; 802.1x; Qos; FTP; SMTP; UPnP; SMMPv1/v2c/v3 (MIB-2); DNS; DDNS; NTP; RTSP; RTSP; RTCP; UPnP; ISMP; ICMP; ICMP; ICMP; DPC; PPPoE; ARP; RTCP Protocol DH-SD Pelco-P/D (auto recognition) Interoperability ONVIF Profile S&G&T CGI Artificial Intelligence User/Host 20 (total bandwidth 64M) Smart Capture Support human, motor vehicle and non-motor vehicle Support human, motor vehicle and non-motor vehicle	PIZ				Digital Zoom	16x
Manual Control Speed Tilt: 0.1*/s-200*/s Preset Speed Pan: 400*/s Tilt: 300*/s Presets 300 Compression S,N Ratio Compression G,711a; G,711Mu; G,726; AAC; MPEG2-Layer2; G722.1; G729, G723 Pattern Scan Scan Support Power-off Memory Support Protocol Preset/Tour/Pattern/Scanning DH-SD Pelco-P/D (auto recognition) Preset/Tourle and non-motor vehicle Smart Capture Support thuman, motor vehicle and non-motor vehicle Syn Ratio S/N Ratio S/N Ratio S/N Ratio S/N Ratio S/N Ratio Syn	Pan/Tilt Range				Flip	180°
Presets Speed Tilt: 3007/s Presets 300 Compression G.711a; G.711Mu; G.726; AAC; MPEG2-Layer2; G722.1; G729; G723 Pattern 5 Network Scan 5 Ethernet RJ-45 (10/100Base-T) Protocol Protocol Preset/Tour/Pattern/Scanning Interoperability Protocol DH-SD Pelco-P/D (auto recognition) Artificial Intelligence Support tunnan, motor vehicle and non-motor vehicle Support tunnan, motor vehicle	Manual Control Speed				Privacy Masking	Up to 24 areas, and up to 8 areas in the same view
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Pattern 5 Network Scan 5 Ethernet RJ-45 (10/100Base-T) Power-off Memory Support Protocol Preset/Tour/Pattern/Scanning Protocol DH-SD Pelco-P/D (auto recognition) Artificial Intelligence Support User/Host 20 (total bandwidth 64M) Support human, motor vehicle and non-motor vehicle Support Potocol Compression G729; G723 Network RJ-45 (10/100Base-T) IPv4; IPv6; HTTP; HTTPS; 802.1x; Qos; FTP; SMTP; UPnP; SNMPv1/v2c/v3 (MIB-2); DNS; DNS; NTP; RTSP; RTCP; UPnP; SNMPv1/v2c/v3 (MIB-2); DNS; DNS; NTP; RTSP; RTCP; UPnP; TCP; UDP; IGMP; ICMP; DHCP; PPPoE; ARP; RTCP Support human, motor vehicle and non-motor vehicle	Presets				Audio	
Scan 5 Ethernet RJ-45 (10/100Base-T) Power-off Memory Support Protocol IPv4; IPv6; HTTP; HTTPS; 802.1x; Qos; FTP; SMTP; UPnP; SNMPv1/v2c/v3 (MIB-2); DNS; DNS; NTP; RTSP; RTP; TCP; UDP; IGMP; ICMP; DHCP; PPPoE; ARP; RTCP Protocol DH-SD Pelco-P/D (auto recognition) Streaming Method Unicast/Multicast Artificial Intelligence User/Host 20 (total bandwidth 64M) Smart Canture Support human, motor vehicle and non-motor vehicle	Tour				Compression	
Power-off Memory Support Protocol Protocol Protocol Preset/Tour/Pattern/Scanning DH-SD Pelco-P/D (auto recognition) Protocol Artificial Intelligence Support human, motor vehicle and non-motor vehicle Protocol Protocol Protocol Protocol Protocol DH-SD Pelco-P/D (auto recognition) Support human, motor vehicle and non-motor vehicle Protocol Protocol Protocol Protocol Interoperability ONVIF Profile S&G&T CGI Unicast/Multicast 20 (total bandwidth 64M)	Pattern	5			Network	
Protocol DH-SD Pelco-P/D (auto recognition) Artificial Intelligence User/Host Support human, motor vehicle and non-motor vehicle Smart Canture Protocol UPnp; SNMPv1/v2c/v3 (MIB-2); DNS; DNS; NTP; RTSP; RTCP Interoperability ONVIF Profile S&G&T CGI Unicast/Multicast User/Host 20 (total bandwidth 64M)	Scan	5			Ethernet	RJ-45 (10/100Base-T)
Protocol DH-SD Pelco-P/D (auto recognition) Artificial Intelligence Support human, motor vehicle and non-motor vehicle Smart Canture Support human, motor vehicle and non-motor vehicle Size Missing Method Unicast/Multicast 20 (total bandwidth 64M)	Power-off Memory	Support			Protocol	UPnP; SNMPv1/v2c/v3 (MIB-2); DNS; DDNS; NTP; RTSP;
Protocol Protocol Pelco-P/D (auto recognition) Streaming Method Unicast/Multicast User/Host 20 (total bandwidth 64M) Smart Canture Support human, motor vehicle and non-motor vehicle	Idle Motion				Interoperability	
Artificial Intelligence User/Host 20 (total bandwidth 64M) Smart Canture Support human, motor vehicle and non-motor vehicle	Protocol					
Smart Canture Support human, motor vehicle and non-motor vehicle	Artificial Intelligence				-	
	Smart Capture	Support human, motor vehicle and non-motor vehicle image capture.			Storage	FTP; Micro SD card (256G); NAS



Browser	IE7 and later versions Chrome 42 and earlier versions Firefox 52 and earlier versions Safari				
Management Software	Smart PSS; DSS; DMSS; Easy4ip; IVSS				
Mobile Phone	IOS, Android				
Certification					
Certifications	CE: EN55032/EN55024/EN50130-4 FCC: Part15 subpartB, ANSI C63.4-2014 UL: UL60950-1+CAN/CSA C22.2,No.60950-1				
Port					
Audio Input	1				
Audio Output	1 (LINE OUT; bare wire)				
Two-way Audio	Support				
Alarm I/O	2/1				
Power					
Power Supply	AC 24V/3A ± 25% (standard) PoE+ (802.3at)				
Power Consumption	Basic: 12W Max: 20W				
Environment					
Operating Temperature	-40°C to +70°C (-40°F to +158°F)				

≤ 95%

IP67; IK10; 6000V lightning proof; surge protection;

voltage transient protection

4.7 kg (10.36 lb)

8 kg (17.64 lb)

Ф190 mm × 332 mm (Ф7.48" × 13.07")

Operating Humidity

Protection

Structure

Dimensions

Net Weight

Gross Weight

Ordering Information						
Туре	Model	Description				
4MP WizSense PTZ Camera	DH-SD5A432XA-HNR	4MP 32x Starlight IR WizSense Network PTZ Camera				
	DH-SD5A432XAN-HNR	4MP 32x Starlight IR WizSense Network PTZ Camera				
	SD5A432XA-HNR	4MP 32x Starlight IR WizSense Network PTZ Camera				
	SD5A432XAN-HNR	4MP 32x Starlight IR WizSense Network PTZ Camera				
Accessories	PFB305W	Wall Mount Bracket				
	AC24V/3A	Power Adapter				
	PFA111	Mount Adapter				
	PFA140	Power Box				
	PFB300C	Ceiling Mount Bracket				
	PFA120	Junction Box				
	PFA150	Pole Mount Bracket				
	PFA151	Corner Mount Bracket				
	PFB303S	Parapet Mount Bracket				

Accessories

Included:







AC24V/3A Power Adapter

Optional:



PFA111 Mount Adapter



PFA120 Junction Box



PFA140 Power Box



PFA150 Pole Mount Bracket



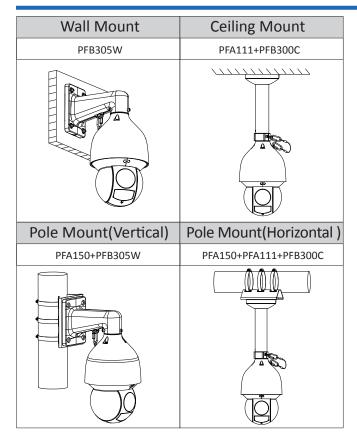
PFB300C Ceiling Mount Bracket



PFA151 Corner Mount Bracket



PFB303S Parapet Mount Bracket



Dimensions (mm[inch])

